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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Teruhiko Hagiwara

Application No.: 09/803,819 ✓

Group Art Unit: 2862

Filed: March 13, 2001 ✓

Examiner: Feick, Emily

For: NMR LOGGING USING TIME-DOMAIN
AVERAGING

Attorney Docket No.:
7420-081-999

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents
Washington, D.C. 20231

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TECHNOLOGY CENTER 2800

Sir:

This responds to the Office Action dated June 11, 2002 for the above-identified patent application. Applicant has attached: Appendix A, a marked-up version of amended paragraphs in the specification; Appendix B, a marked-up version of the amended claims; Appendix C, a clean copy of the claims that will be pending upon entry of the present amendment. Please amend the application as follows.

IN THE SPECIFICATION

✓
Please replace the third paragraph on page 6 of the application with the following paragraph.

Q:
To reduce the effect of random noise, it is commonly practiced to stack echo-trains from a multiple number of events. Fig. 3 illustrates the basic idea behind stacking. The top portion of the figure illustrates single-event echo train obtained from a tool moving in the direction z having a given intrinsic vertical resolution determined primarily by the dimensions of the tool. The bottom portion of the figure shows the effect of multi-event stacking, which clearly reduces the noise considerably, but also acts to change the apparent vertical resolution of the tool.